

Patent claims

1. Immunoabsorber for use in sepsis therapy in which there exist carrier materials of organic or synthetic polymers with bound poly or monoclonal antibodies aimed against the complement factors C3a and/or C5a and against lipopolysaccharides (LPS) and, if need be, with antibodies aimed against further sepsis mediators.
2. Immunoabsorber according to Claim 1, wherein the antibodies are polyclonal antibodies.
3. Immunoabsorber according to Claim 2, wherein the antibodies are avian antibodies of type IgY.
4. Immunoabsorber according to Claims 1 to 3, wherein further antibodies against sepsis mediators are contained as a function of the state of the dysregulation.
5. Immunoabsorber according to Claims 1 and 4, wherein these antibodies are aimed against TNF, IL1, IL6, IL8 and/or IL10.
6. Immunoabsorber according to Claim 1, wherein the bound antibodies are aimed against at least one of the following peptide sequences of the complement factors C3a and C5a

C3a: NH₂-KCCEDGMRQNPMR-COOH
NH₂-RFSCQRRTRFISL-COOH
NH₂-ITELRRQHARAS-COOH

C5a: NH₂-QADYKDDDDKLP AE-COOH
NH₂-DDKLP AEGLDIENS-COOH

7. Immunoabsorber according to Claim 5, wherein the bound antibodies are aimed against at least one of the following peptide sequences of the interleukins 1 α and 1 β

IL1 α : NH₂-NCYSENEEDSSSID-COOH

NH₂-GAYKSSKDDAKIT-COOH
NH₂-WETHGTKNYFTS-COOH
IL1β: NH₂-RISDHHYSKGFRQA-COOH
NH₂-VQGEESENKIPVA-COOH
NH₂-ESVDPKNYPKKKMEKRF-COOH

8. Immunoabsorbent according to Claim 5, wherein the bound antibodies are aimed against at least one of the following peptide sequences of interleukin 6

IL6: NH₂-APHRQPLTSSERIDKQI- COOH
NH₂-QNRFESSEEQARA- COOH
NH₂-AITTPDPTTNAS- COOH

9. Immunoabsorbent according to Claim 5, wherein the bound antibodies are aimed against at least one of the following peptide sequences of interleukin 10

IL10: NH₂-SPGQGTQSENSCT-COOH
NH₂-QMKDQLDNLLKES-CCOH
NH₂-MPQAENQDPDIKA-COOH
NH₂-LPCENKSKAVEQ-COOH

10. Immunoabsorbent according to Claim 5, wherein the bound antibodies are aimed against at least one of the following peptide sequences

TNFα: NH₂-VRSSSRTPSDKPVA-COOH
NH₂-KSPCQRETPEGAEAKPW-COOH

11. Immunoabsorbent according to Claims 1 to 10, wherein the organic or synthetic carrier material comprises membranes of particles of polystyrenes, carbohydrates such as cellulose or agarose derivatives, or acrylates.
12. Immunoabsorbent according to Claims 1 to 11, wherein the specific antibodies are covalently bound to the membranes or particles.
13. Immunoabsorbent according to Claims 1 to 11, wherein the antibodies are fixed to the carrier materials via spacers or linkers.
14. Method for the production of immunoabsorbents according to Claims 1 to 13, wherein antibodies aimed against C3a and/or C5a and LPS and, if need be, against further sepsis mediators are covalently or adsorptively coupled to carrier materials of organic or synthetic polymers.

15. Method according to Claim 14, wherein the antibodies are produced by immunisation preferably of small mammals, such as mice, rats or rabbit, or of birds, such as chickens, with the corresponding antigens.
16. Use of immunoadsorbents according to Claims 1 to 13 as an effective component of an appliance for the removal of complement factors, LPS and, if need be, further mediators in a patient-specific combination of body fluids.
17. Use according to Claim 16, wherein the immunoadsorbents are used for plasma-pherese in patients with sepsis or septic shock as well as other diseases connected with inflammations.

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